* Client/server – contains servers and clients
* Peer-to-peer (P2P) – every computer is considered an equal
* A network is a collection of computer systems configured to share digital data and resources
* LANs extend across limited to geographical area.
* Internetwork: collection of autonomous networks
* a **transmitter** encodes the message as a signal
* the **receiver** extracts a signal from the communications channel and converts it back into the form of a message
* Messages are encoded as a stream of binary numbers **(0s and 1s)**
* **Signals** are transmitted as electro-magnetic energy.
* **CLIENT**- system requesting services
* **SERVER**-( system that receives and handles requests from many clients concurrently
* LAN (Local Area Network)
* WAN (Wide Area Network)
* MAN (Metropolitan Area Network)
* PAN (Personal Area Network)

Two types of signals:

* Analog
* Digital

Broadband

* multiple signals transmitted on the same channel simultaneously
* channel is divided into separate frequency bands, each capable of carrying a signal

Narrowband/baseband

* employs [the entirety of its available] bandwidth for one signal